



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHEAST REGIONAL OFFICE

MEMO

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THROUGH James A. Beach, PE *JAB 2/25/2016*
Environmental Engineer Manager
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DATE February 24, 2016

RE Minor Operating Permit Modification Application Review
Monroe Energy, LLC
Trainer Borough, Delaware County
Application No. 23-00003
APS ID: 786636, AUTH ID: 1067457

On March 30, 2015, the Department of Environmental Protection (DEP) received a minor Operating Permit (OP) modification application from Monroe Energy, LLC (Monroe). The application is to remove a pressure limit for Tank #160 (Source ID 194) located at Monroe's Trainer Refinery at 4101 Post Road, Trainer Borough, Delaware County.

Change Requested

The change requested in the Title V Operating Permit (TVOP) is Condition #002 for Tank #160 (Source ID 194). Monroe requested to remove the vapor pressure limit of 0.015 psia in the condition, because the true vapor pressure varies with the actual storage conditions (temperature), and can exceed 0.015 psia during hot seasons. Monroe provided the 2014 monthly average vapor pressures and calculated VOC emissions from Tank #160. The emissions from the tank remained below 0.3 tons per year even though the true vapor pressure exceeded 0.015 psia. Table 1 below shows the monthly VOC emissions and average vapor pressure recorded for Tank #160 during 2014:

Table 1 – Monthly VOC Emissions and Average Vapor Pressure (Tank #160)

Month	Actual Vapor Pressure (psia)	VOC Emissions (tons)	VOC Emission Limit (TPY)
January	0.009	0.014	
February	0.008	0.010	
March	0.008	0.013	
April	0.011	0.019	
May	0.014	0.015	
June	0.016	0.019	
July	0.019	0.020	
August	0.017	0.011	
September	0.016	0.019	
October	0.011	0.018	
November	0.008	0.018	
December	0.007	0.020	
Total		0.196	0.3

Permitting History

Plan Approval (PA) and Operating Permit (OP) No. 23-312-180

Tank #160 was constructed and operated beginning in 1992 under Plan Approval (PA) and OP No. 23-312-180. It has a capacity of 85,000 barrels (as originally stated in the PA) and is equipped with an internal floating roof. It stores jet A kerosene with a true vapor pressure of 0.015 psia under normal conditions.

According to the review memo of PA No. 23-312-180:

- Tank #160 is not subject to 25 Pa. Code §129.56, because the vapor pressure of the material stored is less than 1.5 psia under actual storage conditions.
- Tank #160 is not subject to 40 C.F.R. 60 Subpart Kb as per 40 C.F.R. §60.110b(c)*.

*: 40 C.F.R. §60.110b(c) is [Reserved] as amended at 65 FR 78275, Dec. 14, 2000; 68 FR 59332, Oct. 15, 2003. Tank #160 is not subject to the provisions of 40 C.F.R. 60 Subpart Kb as per 40 C.F.R. §60.110b(b):

This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (0.507 psia)...

PA and OP No. 23-312-180 was issued with the following limitations:

- The volatile organic compound emissions from this tank shall be limited to a maximum of 0.3 tons/yr.

- The storage tank covered under this OP shall be used to store only Jet A kerosene having a maximum true vapor pressure of 0.015 psia (0.105 kPa).

In 1996, the OP was incorporated into Reasonably Available Control Technology (RACT), OP No. 23-0003. According to the RACT review memo: Tank #160 was listed as “*Storage tanks with vapor pressures less than or equal to 1.5 psia (10 kPa) are considered de minimis emission sources*”. Condition 4 of the RACT OP-23-0003 states:

Consolidation of Operating Permits

This Operating Permit applies to emissions of NOx and VOC pollutants only. Emissions of other pollutants, including criteria pollutants, shall be governed by existing Plan Approvals, Operating Permits, and the applicable requirements of the Rules and Regulations of the Department. All conditions from Plan Approval and Operating Permit No. ...23-312-180...shall be incorporated into this permit.

OP-23-0003 was SIPped by EPA on June 13, 2006 (Federal Register Vol.71, No. 113, p.34013).

In 2003, DEP issued a Title V Operating Permit (TVOP) No. 23-00003. The VOC emission and vapor pressure limitations in OP No. 23-312-180 were incorporated and specified in the TVOP for Tank #160 (Source ID 194).

This minor OP modification is not a RACT revision, because Condition 4 of the RACT OP No. OP-23-0004 was not in the SIPped version. Ms. Gerallyn Duke of EPA Region 3 indicated that (the SIP) specifically EXCLUDES condition #4 in the email to Mr. Beach, DEP SERO dated February 11, 2016.

Regulatory Review

1. Regulations for Storage Tanks

DEP has reviewed Federal and State regulations that might apply to Tank #160, and found no regulatory basis for a vapor pressure limit of 0.015 psia (0.72 kPa) for any storage tanks. However, to assure that the tank is not subject to the provisions of 40 C.F.R. 60 Subpart Kb or 25 Pa. Code §129.56, the maximum true vapor pressure for Tank #160 is set to be less than 0.5 psia (3.5 kPa). The condition was changed to read as:

To be exempt from the Provisions of both 40 C.F.R. 60 Subparts A and Kb, and 25 Pa. Code §129.56, the storage vessel shall only store volatile organic liquids with a maximum true vapor pressure less than 0.5 psia.

2. 25 Pa. Code §§ 121.1 and 127.11

The proposed changes qualify as a minor operating permit modification under 25 Pa. Code § 121.1 since it incorporates a “change involving de minimis conditions and other insignificant physical changes to a source or applicable requirements into an existing permit or a change that does not require plan approval but which contravenes an express permit term.”

The proposed change does not require a Plan Approval pursuant to 25 Pa. Code Section 127.11, as the change does not involve construction or modification of an air contamination source or the installation of a control device.

3. 25 Pa. Code § 127.462

Monroe met the minor operating permit modification requirements of 25 Pa. Code §127.462(b) in submitting the application and 25 Pa. Code §127.462(b) and (c) in submitting notifications to Trainer Borough, Delaware County, the EPA, the states of New Jersey, Delaware and Maryland and publication in the Delaware County Daily Times, a newspaper of general circulation.

Other Corrections

The following corrections were made through this minor OP modification:

Source ID 194 – Tank #160 Capacity

According to DEP records, Tank #160 has a capacity of 85 M barrels, instead of 81 M barrels. The capacity for Tank #160 was corrected.

Source ID T003 – MACT Group 2 Tanks

Condition #001: The words of “external floating roof” were removed, since T003 contains both external and internal floating roof tank(s).

The tank capacity for Source ID 194 in Condition #005 was corrected.

Recommendation

It is recommended that TVOP 23-00003 be modified and issued to Monroe Energy.